

S/137/62/000/005/007/150

A006/A101 .

On the mechanism of condensating ...

function of the backing plate temperature. It was found that, depending on the backing plate temperature, two precipitation zones were formed on the plate. In zone I, at a temperature below T_{c1} (the critical temperature characteristic of the boundary between zones I and II) condensation proceeds by direct crystallization from vapor. In zone II, when the temperature is $> T_{c1}$, but $\leq T_{c2}$, (second critical temperature, separating zone II from the pure plate) condensation proceeds through the liquid phase. The metal, being in liquid state, is then contracted into drops which during further cooling (below T_{c1}) are transformed into polycrystals with a fine-dispersed non-oriented structure. It was established that for Bi $U + U_0 = 38$ kcal/g-atom, and for Sb - 37 kcal/g-atom, where $U + U_0$ is the energy required to decompose the condensate and to remove the atoms, precipitated on the plate. An analysis is made of Bi and Sb phase diagrams in coordinates $1/T$ versus $lg p_{mmHg}$. On the phase diagram for Bi, curves are plotted for "twodimensional" Bi during its condensation on a neutral backing plate in a vacuum. The curves separate the zones of phase subsistence, i.e. twodimensional vapor, twodimensional liquid and twodimensional crystalline phase. The conclusion is drawn that the initial stage of condensate formation on a neutral plate should be considered as twodimensional crystallization or liquefaction of twodimensional metallic vapor, formed on the plate.

[Abstracter's note: Complete translation]

B. Linchevskiy

Card 2/2

38903
S/181/62/004/006/007/051
B125/B104

26.2532

AUTHORS:

Palatnik, L. S., Koshkin, V. M., Gal'chinetskiy, L. P.,
Kolesnikov, V. I., and Komnik, Yu. F.

TITLE:

Some properties of semiconducting compounds of the type
 $A_2^{I}B^{IV}X_3^{VI}$

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1430 - 1431

TEXT: This paper deals with the conductivity and thermo-emf of compounds with the general formula $A_2^{I}B^{IV}X_3^{VI}$ ($A^I = Cu$, $B^{IV} = Ge$ or Sn , $X^{VI} = S$, Se , or Te). Most of these compounds have covalent bonds. Samples were molten in evacuated quartz ampoules and purified by zone refining in 12 to 16 operations. Compounds based on sulfur and selenium can be purified by zone refining more easily than compounds based on tellurium. The values of the conductivity σ ($\text{ohm}^{-1}\text{cm}^{-1}$) and of the thermo-emf α ($\mu\text{v}/\text{deg}$) at room temperature are as follows:

Card 1/3

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

Some properties of semiconducting...

S/181/62/004/006/007/051
B125/B104

SUBMITTED: December 22, 1961

Card 3/3

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

S/070/62/007/004/005/016
E132/E435

AUTHORS: Palathik, L.S., ~~Kemnik~~, Yu.F., Komkin, V.M.

TITLE: The crystal chemistry of compounds with tetrahedrally coordinated atoms

PERIODICAL: Kristallografiya, v.7, no.4, 1962, 563-567

TEXT: The reasons for deviations of lattice periods of covalent crystals from the values calculated from the tetrahedral radii of L. Pauling and M. C. Huggins are analysed. It is shown that for resolving this difficulty it is necessary to include the fact of the partially ionic character of the bonds. Tables of new "truly" covalent tetrahedral radii for the elements have been compiled. Formulae are then given for calculating the lattice periods of many-component compounds from these purely covalent radii taking account of the ionic components. Usually the interatomic distance is calculated from

$$d_{AB} = r_A + r_B - 0.09(x_A - x_B)$$

where x is the electronegativity and r is the normal covalent radius (given by Pauling and Huggins). A table of the purely

Card 1/2

S/070/62/007/004/005/016

E132/E435

The crystal chemistry of

covalent radii is given, the main alterations being in groups 1,
5, 6, 7. Comparisons can be extended to include triple compounds
by a generalization of the formula given above. The differences
in the analysis carried out are all on the borderline of
significance. There are 3 tables.

ASSOCIATIONS: Khar'kovskiy gosudarstvennyy universitet
im. A.M.Gor'kogo (Khar'kov State University imeni
A.M.Gor'kiy) Nauchno-issledovatel'skiy institut
osnovnoy khimii (Scientific Research Institute of
Fundamental Chemistry)

SUBMITTED: August 31, 1961

Card 2/2

PALATNIK, L.S.; ROMNIK, Yu.F.; BELOVA, Ye.K.; ATROSHCHENKO, L.V.

Ternary semiconductor compounds containing copper and elements of group IV and VI. Kristallografiia 6 no.6:960-964 N-D '61. (MIRA 14:12)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo i Nauchno-issledovatel'skiy institut osnovnoy khimii.
(Semiconductors)
(X-ray crystallography)

PALATNIK, L.S.; KOSHKIN, V.M.; KOMNIK, Yu.F.

Isoelectronic series of semiconductor compounds. Kristallografiia
7 no.1:124-125 Ja-F '62. (MIRA 15:2)

1. Khar'kovskiy nauchno-issledovatel'skiy institut osnovnoy
khimii i Khar'kovskiy gosudarstvennyy universitet im. A.M.
Gor'kogo.

(Periodic law)
(Semiconductors)

PALATNIK, L.S.; KOMNIK, Yu.F.; KOSHKIN, V.M.

Crystal chemistry of compounds with a tetrahedral coordination
of atoms. Kristallografiia 7 no.4:563-567 Jl-Ag '62.

(MIRA 15:11)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo
i nauchno-issledovatel'skiy institut osnovnoy khimii.

(Crystallography)

PALATNIK, L.S.; KOSHKIN, V.M.; GAL'CHINETSKIY, L.P.; KOLESNIKOV, V.I.;
KOMNIK, Yu.F.

Some properties of semiconductor compounds of the type $A_2B^{IV}X_3^{VI}$.
Fiz. tver. tela 4 no.6:1430-1431 Je '62. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.
(Semiconductors)

S/185/63/008/002/012/012
D234/D308

AUTHORS: Palatnik, L. S., Komnik, Yu. F., Belova, Ye. K. and Atroshchenko, L. V.

TITLE: X ray investigation of ordering processes in 3-component semiconductor alloys

PERIODICAL: Ukrayins'kyj fizychnyj zhurnal, v. 8, no. 2, 1963,
263-268

TEXT: The authors investigated A_2BC_3 type alloys, A being Cu, B being Ge or Sn, C - Se or Te. The c/a ratio is tabulated. Conclusions: alloys containing Ge and having tetragonal lattice distortions have concentrational ordering of cations. This is indicated by the disappearance of the tetragonal lattice if the ratio of cations to anions decreases, and by its absence in Sn-containing alloys. There are 1 figure and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut osnovnoy khimii
(Scientific Research Institute of Basic Chemistry,
Card 1/1 Khar'kov)

S/181/63/005/004/003/047
B102/B186

AUTHOR:

Komnik, Yu. F.

TITLE:

Measurements of thermal effects during condensation of thin films

PERIODICAL: Fizika tverdogo tela, v. 5, no. 4, 1963, 990 - 997

TEXT: The heating of substratum and condensate during the formation of thin films of Bi and In molecular deposition was measured with the help of a Bi-Sb film thermocouple. The Bi condensate film was at least 10^{-4} mm thick in order to avoid a size effect on the thermoemf of the thermocouple. Usually the Bi films were $2 \cdot 10^{-4}$ cm and the Sb films $4 \cdot 10^{-5}$ cm, this difference being compensated by different widths of the film stripes (0.3 and 0.15 mm), deposited on a lacquer film ($\sim 1 \cdot 10^{-3}$ cm) in a quartz frame. The thermo-emf of the thermocouples was thus $75 \mu\text{v}/\text{deg}$, their sensitivity was 0.002 deg/mm . It was found that the thermal effects caused by the heat emission of the evaporator, by the release of the condensation heat, and by kinetic energy losses of the molecular beam particles hitting the film surface can be determined separately. From the measured dependences of the thermal effect ΔT_{cond} and of the molecular beam intensity on the evaporation

Card 1/2

X-Ray investigation of the structure of alloys in the system
CuGaSe₂-Ga₂Se₃. L. S. Palatnik, Yu. F. Komnik, Ye. K. Belova.

Electrical and optical properties of alloys in the system CuGaSe₂-Ga₂Se₃.
V. M. Koshkin, L. G. Manyukova, Yu. F. Komnik, L. S. Palatnik.

X-Ray investigation of the system CuInSe₂-In₂Se₃. L. S. Palatnik,
Yu. F. Komnik, E. I. Rogacheva, L. V. Atroshchenko.

Electrical properties of alloys in the system CuInSe₂-In₂Se₃.
L. S. Palatnik, V. M. Koshkin, Yu. F. Komnik, L. N. Gal'chinetskiy,
L. G. Manyukova.

Report presented at the 3rd National Conference on Semiconductor Compounds,
Kishinev, 16-21 Sept 1963

ACCESSION NR: AP4019852

S/0181/64/006/003/0873/0878

AUTHOR: Komnik, Yu. F.

TITLE: Observation of packing defects in thin silver layers by means of an electron diffraction camera

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 873-878

TOPIC TAGS: packing defect, silver film, line shift, electron diffraction camera, maximum line intensity

ABSTRACT: The packing defect theory with no principle limit relative to the crystal dimensions has been studied, and it is shown that for very thin silver films the basic cause of line shift on the electron diffraction camera (EDC) are the packing defects. The amount of packing defects in very thin silver films (3-5 Å thick, condensed at room temperature, and containing one strong and two weak diffraction broadening maxima) have been evaluated and their origins discussed. The change in diffraction ring dimension relative to the standard shows both magnitude and direction in the displacement of the maximum line intensity on the EDC to agree with the theory of packing defects. The relative content of such

Card 1/2

ACCESSION NR: AP4019852

defects is shown to decrease with growth in crystal dimensions upon condensation.
Orig. art. has: 9 formulas and 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov
(Institute of Scientific Research in Basic Chemistry)

SUBMITTED: 15Apr63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: OLO

OTHER: OLI

Card 2/2

KOMNIK, Yu.F.

Electronographic observation of the formation process of thin metal films.
Fiz. met. i metalloved. 16 no.6:867-871 D '63. (MIRA 17:2)

1. Khar'kovskiy nauchno-issledovatel'skiy institut osnovnoy khimii.

BR

S/0181/64/006/002/0611/0618

ACCESSION NR: AP4013529

AUTHOR: Komnik, Yu. P.

TITLE: A possible cause of diminution of the lattice constant in thin films

SOURCE: Fizika tverdogo tela, v. 6, no. 2, 1964, 611-618

TOPIC TAGS: lattice constant, thin film, electron microscope EM 5, electron diffraction study

ABSTRACT: Analyses of a series of electron-diffraction photographs, obtained from very thin films of Ag, Al, Pb, and Bi having different thicknesses, shows that the lattice constants decline steadily with diminution in thickness. The change in lattice dimension is on the order of hundredths or tenths of an angstrom. In preparing the material, to eliminate accidental factors, the films were condensed directly in the vacuum tower of the electron-diffraction camera. Photographs were obtained by means of an EM-5 electron microscope with adaptations for this purpose. Several methods of computing particle size in the very thin films are discussed. Shape of the particle is an important factor here, and the author, from his studies and from others, concludes that in such thin films the

Card 1/2

194092/79

W. A. Yu. F.

X-ray diffraction study of the formation of liquid metal films

V. V. Metalliov (metallovedeniye, v. V. M. Nauk. Tsent., Leningrad)

gold film, thin metal film, twin film, metal film condensation,
tin film, lead film, indium film

The x-ray diffraction study was made of the condensation mechanism
of gold, Sn, In, and Pb as an emulsion. Formation of a thin film of
the metal (on a fine-mesh wire mesh). The equipment, in the form of a reactor, was
a glass tube with a heating coil around the substrate holder and a column of the metal
in the form of a glass column. Concentration of impurities in the metals did
not exceed 1%. Electron acceleration voltage was 10 kV and beam cross-section
was 1 mm². It was found that at a certain temperature above a
certain temperature T_1 , which is substantially below the melting tem-
perature of the metals tested condensed with formation of the liquid phase.
This appears to result from the very small size of the metal particles.

1960, APPROXIMATELY

AS earlier mentioned in
the case against the U.S. in
May 1960, the U.S. was
accused of being responsible
able, and of financing

U.S. participation
was denied
in May 1960.

On July 1960, the U.S. was accused
of being responsible for financing

U.S. was denied

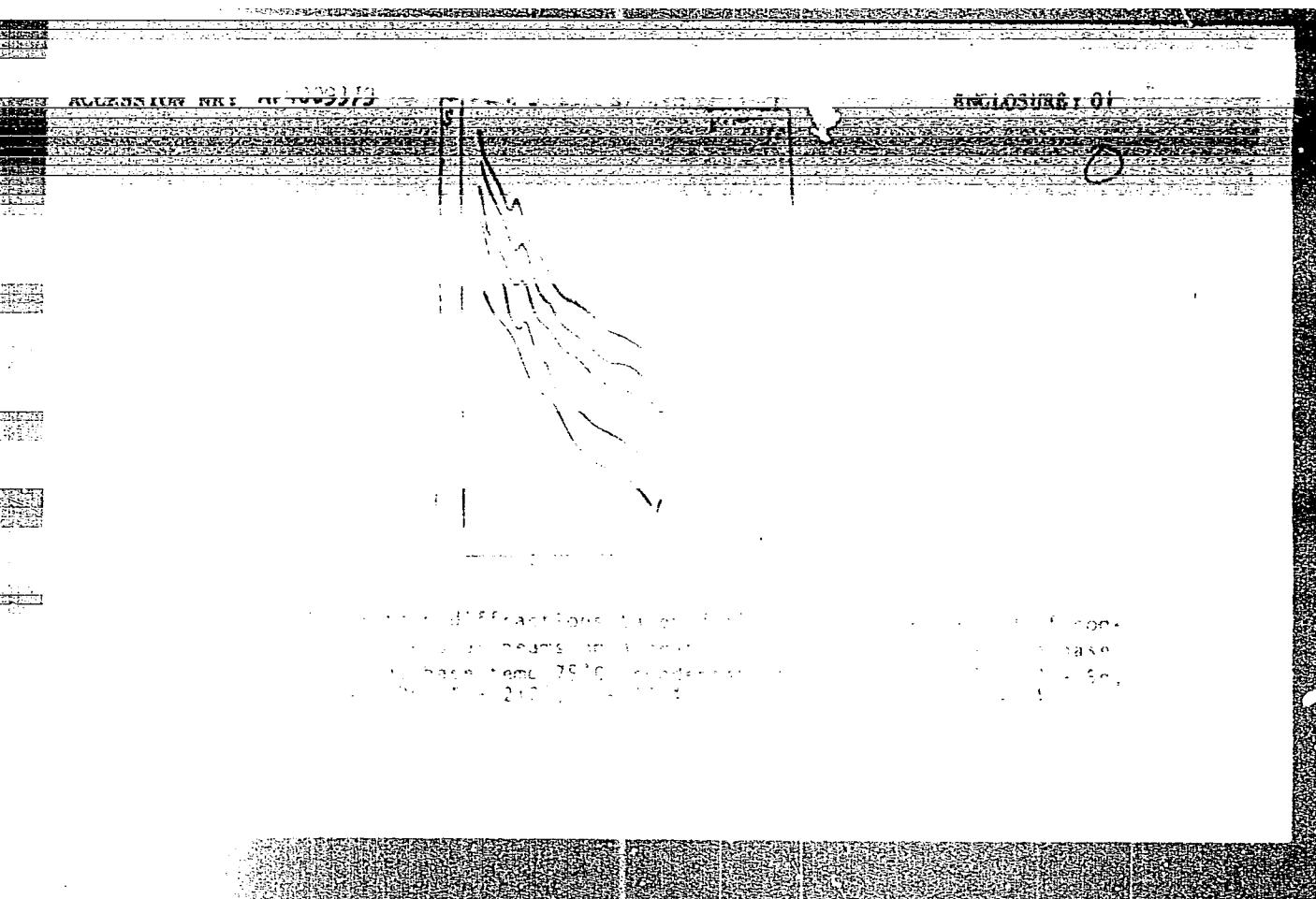
SUB CODE: NM, OF

NO REF ID: 000

FILED: 000

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

RECORDED IN 1977
1977-08-07
REF ID: A6646598

Mr. W. F.

Independent Institute of Science

1000 Connecticut Avenue, N.W.
Washington, D.C. 20004

thin film, condensation, the effect of characteristic
melting temperature, melting temperature

radiation is different from that of the
solid characteristic, the effect of the
characteristic temperature on the condensation
temperature at which the mechanism
 $T_m < T_g$ = melting temperature of the solid and the
 $T_m > T_g$. It is assumed that the metal atoms fall on
from the molecular beam and stay in it for a certain

Card 1/3

100-104-105

the state of "two-dimensional vapor." During the initial period of the condensation the number of atoms in the two-dimensional vapor increases rapidly, so that conditions are created for the formation of a dense packing of atoms in the plane.

Thus, at first T_1 and T_2 , which are close to each other, the mechanism

of the formation of the two-dimensional vapor is dominant.

After insertion of the second atom, the system becomes

stable, forming a two-dimensional molecule.

Thus, features associated with the formation of the two-dimensional vapor are observed at low temperatures, when the temperature is raised, the two-dimensional vapor disappears.

Thus, the theory of the two-dimensional vapor is based on the theory of the two-dimensional molecule.

KOMNIK, Yu.F.

Characteristic condensation temperatures for thin films.
Fiz. tver. tela 6 no.10;2897-2908 O '64. (MIRA 17;12)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.

PALATNIK, L.S.; KOMNIK, Yu.F.; ROGACHEVA, Ye.I. [Rohachova, O.I.]

X-ray diffraction study of semiconducting alloys in the system
Cu--In--Se. Ukr. fiz. zhur. 9 no.8:862-866 Ag '64.

(MIRA 17:11)

PALATNIK, L.S.; KOMNIK, Yu.F.; KOSHKIN, V.M.; GAL'CHINETSKIY, L.P.
[Hal'chynets'kyi, L.P.]; MANYUKOVA, L.G. [Maniukova, L.H.]

Electric properties of alloys in the system CuInSe₂--In₂Se₃.
Ukr. fiz. zhur. 9 no.9:962-972 S '64.

(MIRA 17:11)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.

AT-1, /ANT(m)/BWP(w)/EMI(w)/PA

1983/84

AP-01087

1983/84/0464/0468

Arshik, L. S.; Komnik, Yu. F., Kosarit, V. Z., Lopovidi, I. A., P. V., P. V.; Malyukova, T. G. Matematicheskaya

teoriya i vychislitel'nye issledovaniya po sisteme
metall and optical properties of a new metal - In-Sn-Se system.

in UkrSSR. Lopovidi, no. 7, 1A,

alloy; indium alloy, 182 . . .
mobility, thermal emf, electric conductivity

investigated the
properties of the system In-Sn-Se
increases with decreasing
and increases with
conductivity, and the
conductivity mobility
The results
are concluded like this:

Card 1/2

卷之三

the antigen content of epithelial cells
causes lesions as soon as a few hours.
The expression of the disease
depends on the location of the lymphocytes
and their extension.
In the epithelial cells
they find their place in the basal layer
and in the V. Malpighii.

Ural's'kyj politekhnicheskiy in-t (Ural Polytechnic Institute), Naukovyj zavod im. M. V. Lomonosova (Scientific Research Institute of M. V. Lomonosov)

ENCL 1

1117: 35 man

OTHER: 005

1. WFO/DO/P(6)V7/THA : 74-

1085298

8/21/81 5/27/002/0539/0542

2. Dr. Yu. F. Palatnik, L. S.

3. TITLE: On the influence of the structure on the electric conductivity of thin B
films

4. Magazine title, v. ?, no. ?, etc.,

5. Author, thin film, electric conductivity, etc., etc., etc.,

6. Text: The authors consider the influence of the size of the mean free path of electrons, the thickness of thin films, and the average dimension size on the electric conductivity of bismuth. This research was made in the fact that bismuth, which has a large number of free paths at room temperature, does not display the expected regularities in the variation of conductivity with the film thickness. Two conduction mechanism are considered above a certain critical temperature and insulating conduction in the form of liquid particles, and one below the critical temperature, conduction is in the form of crystalline particles, and it is shown

#PS005298

Certain conditions the expected irregularities of the thickness variation in electric resistivity can occur in films, in qualitative agreement with theory. This deduction was confirmed by an x-ray diffraction of the films 0.4 and 0.8 μ thick, obtained with substrate temperatures 100°C. art. has: 1 figure and 5 formulas.

lit.technicheskiy institut im. V. I. Lenina (Polytechnic Institute);
Institut fizikikh temperaturei AN UkrSSR, Chernov (Physicotech-
nical Institute of Low Temperatures, AN UkrSSR)

1 May 64

ENCL: DC

TYPE: SS, EM

OTHER: DCB

20070711 MA(h)/EMT(1)/EMT(m)/EMG(m)/EMP(+)/T/2401

DR/AT/EP

17.01.8714

17.01.8714 A7

1. Metallographic studies

A4
Korsh, B

2. X-ray diffraction

17.01.8714 A7

3. Gallium compounds, especially gallium nitride, gallium arsenide, gallium phosphide.

4. The structure of alloys in the gallium-arsenic system formed by gallium nitride.

5. The alloy structure is determined by the initial components in every ratio and also after annealing at the melting point of the system at the same temperature. The x-ray studies were carried out with Debye-

Card 1/4

REF ID: A6018714

Micrographs taken in a Vickers microhardness tester indicated that the microhardness constants were determined in the same manner being employed. The microstructure of the samples was investigated by a microscope after etching. The grain size was measured by a standard method (PMT) and the grain boundary length. Microhardness constants were determined by the equation $H_V = 6.801 \pm 0.006 \pm 0.006 \text{ kg/mm}^2$ and $H_R = 1.411 \pm 0.006 \pm 0.006 \text{ kg/mm}^2$. The $(\text{CuGaSe}_2)_3(\text{Ga}_2\text{S}_3)_2$ solid solution CuGaSe₂ single phase formed at 1000°C and above the melt temperature. With increasing temperature and time of heat treatment decreased the microhardness in the samples. The micrographs of samples shown in Fig. 4 show individual grains of size $1.48 \times 1.48 \text{ mm}^2$. Micrographs of other samples are not given because of the poor structure resulting from the low temperature of the furnace each grain contains three distinct concentrations of the Cu mixture of the sample.

two phases (tetragonal and cubic). Alloys with $x > 0.521$ are single [111] cubic lattice. The lattice parameter is

ACCESSION NR: A05018714

Milling, and layering. The
and nonferrous elements in the
reaction area 0--20 mole % (2Ga₂Se₃), 52--70 mole % (As₂S₃) and
Sulfur. The reaction products are
with tetragonal coor-
dination. The
reaction area
0--20 mole % (2Ga₂Se₃), 52--70 mole % (As₂S₃) and
Sulfur. The
reaction products are
with tetragonal coor-
dination.

----- 01Jul64

ENCL: 00

NYC 100-8

2000 p.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

CHUMAKOV, V.P., kand.tekhn.nauk, dotsent; KOMNOV, V.A., fizsh.

Analyzing the performance of the forced drive of a driven coil
in the SNP machine for winding potentiometers on flat spools.
[Trudy] MVTU no.105:131-140 '61.

(Winding machines—Testing)

(MIRA 15:4)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMNOVA, A.V., inzh.

Effect of defects in fabrics used in shoe manufacture on their utilisation. Nauch.-issl. trudy TSMIKP no.28:26-44 '57.

(Shoe manufacture)

(MIRA 11:10)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

KOMNOVA, A. V.: Master Tech Sci (diss) -- "The effect of flaws in the utilization of shoemaking fabrics". Moscow, 1959. 14 pp (Min Higher Educ USSR, Moscow Tech Inst of Light Industry), 130 copies (KL, No 10, 1959, 126)

MOREKHODOV, G.A.; SHUSTOROVICH, M.L. [deceased]; BELYAYEV, A.V.;
GRIGOR'YADI, M.G.; KOMNOVA, A.V.

Adequate thickness of Russian leather. Kosz.-obuv.prom. 2
no.2:21-23 F '60. (MIRA 13:5)
(Leather)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMNOVA, A.V.; SHEYNERMAN, Ye.M.

Grades of fabrics for footwear. Standartizatsiia 24 no.8;47-48
Ag '60. (MIRA 13:9)
(Textile fabrics--Standards) (Shoe manufacture)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

KOMNOVA, A.V., kand. tekhn. nauk;

Are there any new features in the information about the wear resistance
of sole leather? Kozh.-obuv. prom. 6 no.8:43 Ag '64.

1. TSentral'nyy nauchno-issledovatel'skiy institut kozhevenno-obuvnoy
promyshlennosti.

(MERA 17:10)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMNOVA, A.V., kand. tekhn. nauk

Drafting of new state standards for the classification of
leather for shoe uppers. Kozh.-obuv. prom. 7 no.1:11-15
Ja '65.

(MIRA 18:3)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

KRUTIKOV, A.; SELISHCHEV, G.; GABIS, V.; LIBERMAN, A.; KOMNOVA, L.;
BUT, A.; SUTANKIN, A.; ZHEROMSKAYA

Unremitting attention to self-service stores! Sov.torg. 33
no.7:12-13 Jl '60. (MIRA 13:7)

1. Direktor moskovskogo magazina samoobsluzhivaniya "Gastronom" No.65 (for Krutikov).
2. Direktor moskovskogo magazina samoobsluzhivaniya "Gastronom" No.64 (for Selishchev).
3. Direktor magazina No.65 Moskvoretskogo RPT (for Gabis).
4. Direktor moskovskoy bulochnoy No.44 (for Liberman).
5. Direktor moskovskoy bulochnoy No.367 (for Komnova).
6. Direktor moskovskogo magazina samoobsluzhivaniya "Mosovoshch" (for But).
7. Direktor moskovskogo magazina samoobsluzhivaniya No.78 "Mosmoloko" (for Sutankin).
8. Zamestitel' direktora magazina No.22 "Ogonek" Sverdlovskogo RPT (for Zheromskaya).
(Self-service stores)

AUTHORS: Komochkov, M. M., Mekhedov, V. N. 89-4-5-13/26

TITLE: Activation of the Air by Radiation From a Synchrocyclotron
(Aktivatsiya vozdukha izlucheniyami ot sinkrotsiklotrona)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 5, pp. 471-474 (USSR)

ABSTRACT: By aid of a collecting chamber with a volume of 7.51 l-equipped with a cylindrical aluminium counting tube (thickness of the wall 150 μ) as detector, the concentration of the radioactive gases in the air is measured by their β -activities. The air present at the site of the 680 MeV synchrocyclotron of the United Institute of Nuclear Physics and its activity during the operation of the apparatus is measured. The following measuring results were obtained:

Isotope	Relative yield	
	Protons leave the apparatus	Neutrons leave the apparatus
O ¹⁵	0.12	2.7
N ¹³	0.06	0.31
C ¹¹	0.06	0.46

Card 1/2

Activation of the Air by Radiation From a Synchrocyclotron 89-4-5-13/26

A ⁴¹			0,04
F ¹⁸	3.10 ⁻⁴		

With 660 MeV-protons and at a proton-intensity of $\sim 10^{10}$ p/sec the air in the neighborhood of the tube window has an activity of less than 3.10^{-8} C/l.

With neutrons which originate in the charge exchange of protons on beryllium the dose at the same place amounts to about $\sim 1 \cdot 10^{-8}$ C/l.

A control measurement in the air exhaust canal of the building in which the apparatus is set up, showed, that the exhaust air is practically not active and that there is no danger for the staff of the adjoining laboratories.
There are 3 figures and 1 table.

SUBMITTED/ June 21, 1957

AVAILABLE: Library of Congress

Card 2/2 1. Air—Radioactivation analysis 2. Radioactive gases—Measurement
 3. Synchrocyclotrons—Radiation effects

AFANAS'YEV, V.P.; GOLOVINA, V.A.; KOMOCHKOV, M.M.; MEKHEDOV, V.N.;
OGANESYAN, K.O.; ROZHKOV, V.Ye. [deceased]; ROZANOVA, A.M.

Dosimetric check. Med. rad. 5 no.1:6-12 Ja '60. (MIRA 15:3)
(RADIATION--DOSEAGE)

21.2000

77252
SOV/89-8-2-17/30

AUTHORS: Komochkov, M. M., Mekhedov, V. N.

TITLE: Some Data on Radiation Distribution From the OIYaI Synchrocyclotron. Letter to the Editor

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 2, pp 152-153 (USSR)

ABSTRACT: Measurements were performed while producing neutrons by protons bombarding a beryllium target with up to 680 mev of energy and 0-0.3 μ a of current in the outer orbit region. Detectors were placed in the plane of the accelerated protons. One of them served as an intensity monitor. Neutrons above 50 mev were detected by means of an ionization chamber registering fragments from bismuth fission. Fast protons were eliminated using 15-20 cm of lead shielding. The background of the aluminum-built chamber without the bismuth cover was 1.5%. Data were taken also by carbon counters, with a threshold around 20 mev, which permitted flux measurements in areas where the fission chamber was unable to work due to the action of electromagnetic fields of the

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Some Data on Radiation Distribution From
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accelerator. Figure 1 shows the results, using the following code: numerator - point index; denominator - particle flux in relative units. There is evident a sharp cone of particles which in the case of $E_n > 50$ mev has an angular spread of $29 + 1^\circ$. The authors also estimated, using the C counter, the flux of neutrons from the beryllium target in a collimated beam 14 m from the target. They got a flux of 3 to $7 \cdot 10^4$ neutrons/cm².sec for $E_n > 20$ mev neutrons. The authors computed that for every 10 protons of the circulating beam one neutron with > 50 mev would appear outside the cyclotron chamber. Behind the shielding walls, where the intensity was low, the authors used for $E_n > 50$ mev the photoemulsion K-200. Neutrons with $E_n > 0.5$ mev were registered by means of a scintillation counter using a mixture of organic glass and zinc

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sulfide. The code to the right of the shield is:
numerator - point number; first number in denominator -
neutron flux with $E_n > 0.5$ mev; second number -
intensity of γ -ray dose in $\mu R/sec$. In laboratories
1, 2, and 3 the measurements were made under most
unfavorable conditions--when two beams in full strength
of 10^7 neutrons/sec were going through the laboratories.
The authors also determined the level of radiations in
the whole accelerator building, including the roof.
A thickness of 41-43 cm of concrete would cut the
neutron $E_n > 50$ mev flux to one-half. The authors
concluded that the accelerator shielding was sufficient
to secure the safety of the working personnel. In
future constructions a more compact arrangement of
shielding walls should be introduced to obtain the
effect needed with less material. V. P. Dzhelepov
helped and showed interest. There is 1 figure; and
2 Soviet references.

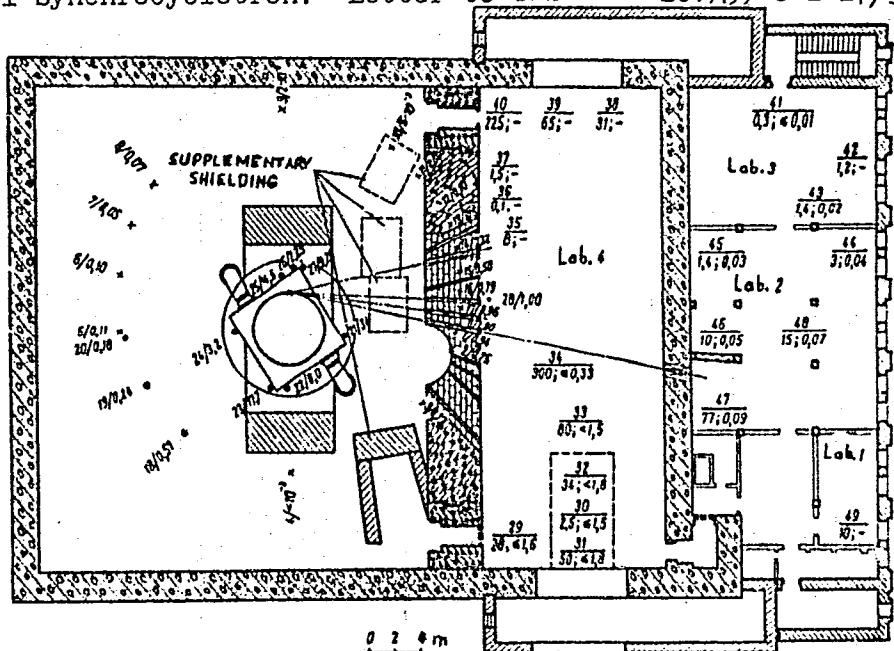
SUBMITTED:

April 20, 1959

Card 3/5

Some Data on Radiation Distribution From
the OIYAI Synchrocyclotron. Letter to the
Editor

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Card 4/5

Some Data on Radiation Distribution From
the OIYAI Synchrocyclotron. Letter to the
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Caption for Fig. 1.

Fig. 1. Radiation distribution around 6-meter syn-
chrocyclotron. x - Measurements utilizing bismuth
chamber; o - measurements using carbon detectors.

27526
S/089/61/011/004/008/008
B102/B138-

21.3100

AUTHOR: Komochkov, M. M.

TITLE: Neutron flux attenuation in the concrete shield of a synchrocyclotron

PERIODICAL: Atomnaya energiya, v. 11, no. 4, 1961, 399 - 401

TEXT: Since there exist no data on the half thickness $\Delta_{1/2}$ (the thickness of matter in which the neutron flux has dropped to half its value) of neutrons with energies of more than 300 Mev, the author determined these values for concrete ($\rho = 2.35 \text{ g/cm}^3$). Measurements were carried out at the Laboratoriya yadernykh problem Ob'yedinenного instituta yadernykh issledovaniy (Laboratory of Nuclear Problems of the Joint Institute of Nuclear Research). The attenuation was measured in the 2-m concrete shielding wall of the synchrocyclotron. The neutron fluxes were determined by threshold detectors or from nuclear reactions induced by the neutrons in emulsions. The neutron flux at the wall was constant within an area of 2 m diameter, whose center coincided with the center of the

Card 1/4

Neutron flux attenuation...

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S/089/61/011/004/008/008
B102/B138

experimental hole. The angular divergence of the beam was 3°. For resonance and thermal neutrons, indium and copper foils, were used for detection, and for neutrons with $\gtrsim 50$ Mev, thick photoemulsions. From the attenuation curves (Fig. 2) it was found, that there exist two groups of neutrons with $\Delta_{1/2} = 6 - 9$ and $\Delta_{1/2} = 41 - 43$ cm. They corresponded to neutrons of a few Mev and of hundreds of Mev, respectively. Equilibrium between these two groups was reached after 90 cm of concrete. For the second group, the $\Delta_{1/2}$ values were in good agreement with the calculated ones, using the relation $\Delta_{1/2} = \ln 2 / \sum A_i \sigma_i$ (A_i - number of nuclei of the i-th element per cm^3 of concrete, σ_i - inelastic interaction cross sections for nuclei of the i-th element and 650-Mev protons. The author thanks V. P. Dzhelepov and V. P. Afanas'yev for help and interest. There are 2 figures, 1 table, and 5 references: 3 Soviet and 2 non-Soviet. The latter read as follows: P. Gugelot, H. White. J. Appl. Phys., 21, 369 (1950); Conference on Shielding of High-Energy Accelerators. New York, April, 1957.

Card 2/4

Neutron flux attenuation...

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S/089/61/011/004/008/008
B102/B138

SUBMITTED: April 6, 1961

Fig. 2. Neutron flux densities at various depths of concrete.
Detector: x - In ($\Delta_{1/2} = 42 \pm 1$ and 8 ± 0.3 cm); o - In + Cd
($\Delta_{1/2} = 41 \pm 1$ and 6.5 ± 0.5 cm); Δ - Cu ($\Delta_{1/2} = 41 \pm 1$ and 9 ± 0.5 cm);
• - photoemulsion ($\Delta_{1/2} = 43 \pm 2$ cm); \square - C^{12} ($\Delta_{1/2} = 42 \pm 2$ cm).
Ordinate: neutron flux in relative units, abscissa: concrete thickness
in cm.

Card 3/4

ZAYTSEV, L.N.; KOMOCHKOV, M.M.

Optimum amount of water in the concrete shielding of a
reactor. Sbor. trud. MISI no.41:33-44 '62. (MIRA 16:6)

(Shielding(Radiation))

38448

8/089/62/012/006/012/019

B102/B104

21.5250

AUTHORS: Zaytsev, L. N., Komochkov, M. M., Sychev, B. S.

TITLE: Attenuation of high-energy neutrons in concrete

PERIODICAL: Atomnaya energiya, v. 12, no. 6, 1962, 525 - 527

TEXT: The intensity losses of fast neutrons passing through special heavy concretes were studied on the synchrocyclotron of the Laboratoriya yadernykh problem Ob'yedinennogo instituta yadernykh issledovaniy (Laboratory for Nuclear Problems of the Joint Institute of Nuclear Research). Previously, such studies had been made only for ordinary concretes. Three types of concrete (densities, 2.35, 3.2, and 4.1 g/cm³) were studied, the first being the same as that used in the synchrocyclotron. The neutron flux was determined from the C¹¹ activity in the concrete. The C¹²(n, 2n)C¹¹ reaction has a threshold of 20 Mev and a constant cross section in the energy range considered. At E_n > 20 Mev, the drop of intensity in concrete 20 - 40 cm thick was found to follow an exponential law. The authors' experiments refuted the assumption that the thickness which reduces the intensity to

Card 1/2

Attenuation of high-energy ...

S/089/62/012/006/012/019
B102/B104

50 % be inversely proportional to the concrete density (Callan, Amer. Inst. 25, 17, 1953). Economic considerations show that a reduction of the required thickness cannot compensate for the rise in cost resulting from the use of heavy concretes. The concretes in question cost 28.9, 75.0, and 209.6 rubles/m³. There are 3 figures and 3 tables.

SUBMITTED: February 10, 1962

X

Card 2/2

L 17587-63

ENT(m)/EDS AFFTC/ASD DM

ACCESSION NR: AP3005220

9/0089/63/015/002/0126/0130

AUTHOR: Komochkov, M. M.54
52TITLE: Activation of various materials upon radiation with protons of 660 Mev energy.

SOURCE: Atomnaya energiya, v. 15, no. 2, 1963, 126-130.

TOPIC TAGS: activation of material on irradiation, prompt Gamma, induced Gamma, induced Beta, ionizing radiation

ABSTRACT: The radiation damage to the personnel working with proton accelerators of several hundred Mev is caused by three types of ionizing radiations: neutrons, prompt Gammas, and induced Betas and Gammas. Induced radiations are the most dangerous. Author found that Betas constitute only 25% of induced radiation from the synchrocyclotron material. Hence, only the yield of the induced Gamma radiation was determined in this study. The activity of materials after being irradiated for 40 min. by 660 Mev protons was measured at various times after irradiation. The specific activity varies from 15 to 700 microgram-equiv.Ra/gm for different materials after one hour of irradiation by a proton flux of 10^{10} protons/cm²·sec. "In conclusion, the author expresses his gratitude to Prof.

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L 17587-63

ACCESSION NR: AP3005220

2

V. P. Dzhelepov for suggesting the problem and to V. M. Mekhedov for a constant interest in this work." Orig. art. has 1 figure, 1 table and 5 equations.

ASSOCIATION: none

SUBMITTED: 14Sep62

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NC REF Sov: 004

OTHER: 002

Card 2/2

KOMOCHKOV, M.M.; SYCHEV, B.S.

Attenuation of a high-energy neutron flux in a shielding. Atom.
energ. 15 no.4:325-327 O '63. (MIRA 16:10)

(1) $\sin \theta = \frac{1}{2}$ and $\cos \theta = \frac{\sqrt{3}}{2}$

10. *Leucosia* *leucostoma* *leucostoma* *leucostoma*

1. Karachay-Cherk.

• Incident in the corridor •

— *Alpin-Schrotte* [Annot. 1902] —

LA MAGISTERIAL ESTADOUNIDENSE. 1920.

Department for the Environment

installations. Design and construction of nuclear engineering installations), is-

gamma ray shielding

AT5003173

elements with average atomic weight. This shows the importance of water content for shielding against fast neutrons. Thus, the main parameter of concrete shielding which must be optimized because the density of the concrete is determined by its water content. The optimum water content in the concrete is 20% but is a function of the concrete density. The required radiation resistance of the shielding installations analyzed, the optimum required water content varies between 2 and 6%. The results of the shielding covers calculations of water loss by evaporation in the concrete due to the convection currents gradients within the concrete layer. The paper also discusses the possibility of using one of the methods of concrete composition to determine the optimum water content. The author believes that this is a promising way to the selection of the optimum water content. The results presented in the paper are considered tentative, since they were obtained in a series of experiments on a small scale of any nuclear installation. On the contrary, these results show the possibility of application to other classes of concrete, which is added to the practical value of the article. Orig. artl. has: 1 table, 3 figures and 14 formulas.

ASSOCIATION: Kafedra stroitel'stva yadernykh ustroystv, Mekhanicheskii inzhenerno-stroitel'nyy institut (Department for the Construction of Nuclear Engineering Installations, Moscow Engineering and Construction Institute)

"APPROVED FOR RELEASE: 06/13/2000

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APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

L 58913-65 ENT(m)/EPA(w)-2/EWA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007938

S/0000/64/000/000/0547/0555

AUTHOR: Glazov, A. A.; Donisov, Yu. N.; Dmitriyevskiy, V. P.; Zamolodchikov, B. I.;
Zaplatin, N. L.; Kol'ga, V. V.; Komochkov, M. M.; Kropin, A. A.; Dzhelepov, V. P.;
Gashev, M. A.; Malyshov, I. F.; Monoszon, N. A.; Popkovich, A. V.

TITLE: Relativistic 700-Mev proton cyclotron

40
38
pt. 1

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy.
Moscow, Atomizdat, 1964, 547-555

TOPIC TAGS: proton accelerator, relativistic particle

ABSTRACT: Current theoretical concepts and experimental data conclusively show that to understand the microcosm further it is necessary to increase the beam intensity of accelerators by a factor of 10^3 and produce accelerators with energies up to thousands of Bev's. For the past 5-8 years constant gradient accelerators (500-900 Mev cyclotrons) have appeared to be the best way to produce particles with energies up to 1 Bev (1 Gev) with beam currents of the order of 1 milliampere instead of 1 microampere (as found in synchrocyclotrons). The present report describes the design for a 700-Mev proton cyclotron developed by the Laboratory of Nuclear Prob-

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L 58913-65

ACCESSION NR: AT5007938

blems of the OIYaI jointly with the NIIEFA GKAE SSSR and other scientific research institutes with rated current proton beam up to 500 microamperes. The choice of energy was made on the basis of the fact that at 700 Mev the cross-sections for formation of pions in nucleon-nucleon and nucleon-nuclei collisions are close to maximum, and also because of the possibility of utilizing the electromagnet of the 680-Mev synchrocyclotron of the OIYaI for the new accelerator. The following new problems were considered in the design because there is now no similar operational high-energy accelerator: (a) verification of the linear theory and development of the nonlinear theory of spatial stability and of the phase motion of particles in the accelerator; (b) creation in a large space of a magnetic field with complex configuration and its stabilization with an unusually high degree of accuracy; (c) production of apparatus for the measurement of strongly nonhomogeneous magnetic fields (gradients up to 4000 oe/cm) with an accuracy better than 10^4 ; (d) production of high-frequency oscillators with power up to 2 MW at a frequency of 12 megacycles per second (12 Mc), with frequency stability of the order of 10^{-5} , which operate with a resonance system with amplitude of the accelerating high-frequency voltage of up to 100 kilovolts; (e) design of an accelerator and its auxiliary systems which ensure effective operation and maintenance under conditions of high levels of activity; (f) development of a highly effective system for the channeling of proton beams from the accelerator, and also solution of the problems connected with

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L 58913-65

ACCESSION NR: AT5007938

2

producing beams of secondary particles and their channeling and focusing; (g) development of plans for the protection of personnel and instruments from radiation. The paper concludes that the relativistic cyclotron offers wide new possibilities for nuclear research in radiobiology, solid state physics, etc. Orig. art. has: 7 figures, 3 tables.

ASSOCIATION: (I) Ob'yedinenyyi institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research, Dubna); (II) Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific Research Institute of Electrophysical Equipment, GKAE SSSR).

SUBMITTED: 26 May 64

ENCL: 00

SUB CODE: NP

NO REF Sov: 009

OTHER: 002

Cord 3/3

L 28845-66 EPF(n)-2/EWA(h)/EWP(j)/EWT(m)/ETC(f)/ENG(m)/EWA(l) RM
ACC NR: AP6013737 (A) SOURCE CODE: UR/0089/66/020/004/0355/035C

AUTHOR: Sychev, B. S.; Mal'kov, V. V.; Komochkov, M. M.; Zaytsev, L. N.

ORG: None

TITLE: Passage of high-energy neutrons through a heavy concrete [4] 39
shielding 15 38 B

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 355-356

TOPIC TAGS: neutron energy distribution, neutron shielding, nuclear
shielding, concrete

ABSTRACT: The authors present in a brief form the results of their experiments, conducted in the CIYAI synchrocyclotron laboratory, on shielding consisting of a series of slabs (53 mm thick). The slabs are made of heavy (hematite) concrete having a density of 3480 kg/cu m. The chemical composition of concrete slabs is given, being expressed in percent by weight. The content of hydrogen is 0.35wt.%. The experimental data characterizing the neutron attenuation for different energy groups are plotted for various concrete thicknesses (up to 4000 kg/sq m). The neutron groups include high-energy neutrons ($E \geq 20$ Mev), fast neutrons (2 to 20 Mev), intermediate neutrons (E about 1.44 ev). These three

Card 1/2

UDC: 621.039.512.45

Card 2/2 CV

L 41035-66 EWT(m)/T

ACC NR: AP6013725

(A) SOURCE CODE: UR/0089/66/020/004/0323/0327

K3
40
BAUTHOR: Sychev, B. S.; Mal'kov, V. V.; Komochkov, M. M.; Zaytsev, L. N.

ORG: none

TITLE: The passage of high energy neutrons through iron-water mixtures

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 323-327

TOPIC TAGS: neutron shielding, neutron diffusion, neutron detector, neutron flux

ABSTRACT: The accumulation of slow neutrons ($E < 1$ MeV) during the passage of high energy neutrons through iron and iron-water mixtures was determined experimentally and theoretically. A set of 20 mm thick 980 x 980 mm steel plates was placed into a 1000 x 1000 x 2000 mm metal container located in the synchrocyclotron chamber of the OIYAI. Concrete blocks shielded the device from scattered radiation. Neutrons were generated by 170, 250, 350, 480, and 660 MeV protons. The paper presents the characteristics of the three detectors used, the attenuation of the neutron flux generated by high energy protons, the relaxation length of high energy neutrons (for various energies of primary protons and differing concentrations of water), the buildup factors of intermediate neutrons, and the thickness of iron-water shielding of varying hydrogen content for a 200-fold attenuation. An analysis of the results shows that the use

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UDC: 621.039.512.45

L 41035-66

ACC NR: AP6013725

(3)

of iron without the addition of hydrogen is not expedient. The authors are deeply indebted to V. S. Kiselev for his help in the calculation of the buildup factors of intermediate neutrons, and to V. P. Afanas'yev and V. M. Nazarov for making available the calibrated high-energy and intermediate-energy neutron detectors. Orig. art. has: 7 formulas, 2 figures, and 3 tables.

SUB CODE: 18/ SUBM DATE: 29Jun65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 bdr

L 06454-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JR
ACC NR: AP6024543

SOURCE CODE: UR/0089/66/021/001/0056/0057

AUTHOR: Zaytsev, L. N.; Komochkov, M. M.; Mal'kov, V. V.; Cherevatenko, Ye. P.; Sychev, B. S.

35
33
X3

ORG: none

TITLE: Attenuation of high-energy neutron fluxes by heterogeneous shields

SOURCE: Atomnaya energiya, v. 21, no. 1, 1966, 56-57

TOPIC TAGS: reactor shielding, reactor neutron flux, neutron absorption

ABSTRACT: The authors present results of experimental investigations of the distribution of neutron fluxes of varying energy groups in layered shields. The investigations were made with the OIYaI synchrocyclotron in a neutron flux obtained by bombarding a beryllium target with 660-Mev protons. The geometry of the experiment is described elsewhere (Atomnaya energiya v. 12, 525, 1962). The neutron fluxes were registered with threshold detectors of In¹¹⁵, P³¹, and C¹², which were briefly described earlier (Atomnaya energiya v. 20, 323, 1966). X ray films of individual gamma dosimeters were also used. The following shield combinations were used: iron/water, iron - heavy concrete, and water - iron - water. An analysis of the measured attenuation produced by these shields leads to the conclusion that the presence of the first layer does not influence the character of attenuation of the neutron flux in the second layer. Secondary effects connected with resonant neutrons produced at the boundary of the two materials are discussed. It is recommended that the second layer

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UDC: 621.039.512.45

L 06454-67

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

ACC NR: AP6024543

be made of hydrogen-containing material to reduce the effect of accumulation of intermediate neutrons in heavy materials. The authors thank Z. Tsisek and A. P. Chervatenko for help with the experiments. Orig. art. has: 3 figures and 3 formulas.

SUB CODE: 18/ SUBM DATE: 22Feb66/ ORIG REF: 005

Card 2/2

ACC NR: AN6023941

Monograph

UR/

Broder, D. L.; Zaytsev, L. N.; Komochkov, M. M. Mal'kov, V. V.;
Sychev, B. S.

Concrete in the shielding of nuclear installations (Beton v zashchite
yadernykh ustanovok) Moscow, Atomizdat, 1966. 239 p. illus.,
biblio., tables. 2050 copies printed.

TOPIC TAGS: accelerator, concrete, nuclear engineering, nuclear
radiation, radiation shielding, reactor shielding

PURPOSE AND COVERAGE: This book is intended for designers of nuclear
devices and readers working in the nuclear industry. Methods and
techniques for swift evaluation of various nuclear shieldings are
presented. Approximate methods of calculating concrete shieldings
are covered in the following sequence: the determination of emitted
radiation and its distribution, of the distribution of radiation
fluxes along the thickness of the shield, and of the permissible
radiation levels beyond the shield. Particular attention is given
to the shieldings of high-power accelerators. Prof. A. N. Komarovskiy
and Docent V. B. Dubrovskiy provided advice, and A. V. Kudryavtseva,
A. M. Tugolukov, V. S. Kiselev, and P. A. Lavdanskiy cooperated.

Card 1/2

UDC: 621.039.538

ACC NR: AM6023941

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Ch. 4. Calculation of Attenuation of Radiation from High-Energy Particle Accelerators -- 100
Ch. 5. Penetration of Neutrons Through Concretes -- 122
Ch. 6. Gamma-Radiation Penetration Through Concretes and Formation in Concretes -- 162
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SUB CODE: 18// SUBM DATE: 16Feb66/ ORIG REF: 108/ OTH REF: 116

Card 2 / 2

KOMNOVA, Z.D.

Change in the tissues of the parodontium in periodontitis. Stomatologija
40 no.1:20-24 Ja-F '62. (MIRA 14:5)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. B.I.Migunov)
Moskovskogo meditsinskogo stomatologicheskogo instituta (dir. -
dotsent G.N.Baletskiy).

(GUMS—DISEASES)

BIRKENVAL'D, P.V.; BURDIN, M.P.; GORKIN, S.F.; YEGOROV, V.P.; ZARZETSKIY,
V.A.; KOMODOV, A.A.; LAKTIONOV, A.T.; LEBEDENKO, D.P.; LIUBEVSKIY, A.A.;
LOBANOV, G.V.; LYAHOVETS'KIY, Z.Ya.; MIROYEVSKAYA, O.H.; MIKHAYLOV,
P.N.; NIKOLAYEV, S.V.; PAKHODEYEV, V.I.; SOKOLOV, G.V.; STRIZHEV, N.I.;
SHAPOVALOV, V.A.; YAVKIN, P.Ye.; IVANININ, F.D., redaktor; DROZDOV,
A.I., redaktor vypuska; SERGEYeva, N.A., redaktor izdatel'stva;
BORISOV, A.S., tekhnicheskiy redaktor

[Handbook of consolidated estimate norms for geological prospecting
operations] Spravochnik ukrupnennykh smetnykh norm na geologo-
razvedochnye raboty (SUSH). Moskva, Gos. izd-vo geol. lit-ry. No.7
[Rotary drilling] Rotornoe burenie. 1950. 175 p. (MLRA 9:12)
[Microfilm]

1. Russia (1923- U.S.S.R.) Ministerstvo geologii.
(Boring)

KOMOGAYEVA, Z.R.

KOMOGAYEVA, Z.R.

Activities of a medical rural center in tuberculosis control in the
Yakutsk A.S.S.R. Probl. tub. n°.1:6-9 Ja-F '55. (MLRA 8:4)

1. Zav. Dyupsinskim sel'skim vrachebnym uchastkom.
(TUBERCULOSIS, prevention and control,
in Russia, in rural areas)
(RURAL CONDITIONS,
tuberc. control, in Russia)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMOGOR, L.A., elektrotehnik.

Automatic control of a spiral twisting machine. Energetik 3 no.5:19-14 0 '53.
(MLRA 6:10)
(Spinning machinery)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

1 C

L 41159-65 ENT(n)/EXP(t)/EXP(k)/EXP(b) Pf-4 JD
ACCESSION NR: AP5007176 S/0286/65/000/003/0043/0043

AUTHOR: Vinichenko, G. G.; Tarasenko, V. A.; Shtan'ko, V. M.; Panyushkin, A. V.; Bobrov, V. G.; Komogorov, N. N.

TITLE: A cutting fluid for hot finishing of metals. Class 23, No. 167940 13 B

SOURCE: Byulleten' izobretений i tovarnykh znakov, no. 3, 1965, 43

TOPIC TAGS: cutting fluid

ABSTRACT: This Author's Certificate introduces a cutting fluid for hot finishing of metals. The fluid is based on common salt, graphite, mineral oil and sawdust. In order to avoid surface carburization, the fluid also contains zinc sulfate, a mixture of ferrous and ferric hydroxides and potassium sulfate.

ASSOCIATION: none

SUBMITTED: 30Mar64 ENCL: 00 SUB CODE: MT

NO REF Sov: 000 OTHER: 000

fo
Card 1/1

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMOGOROV, P.R., polkovnik med.sluzhby

Clinical forms of eczema. Sbor.nauch.trud.Kiev.ckruzh.voen.gosp.
no.4:328-332 '62. (MIRA 16:5)
(ECZEMA)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3

KOMOGOROV, P.R.; KLIMENKO, A.V.; RYAKHOVSKIY, I.Ye.; GODOMILOVA, M.S.

Specific composition of fungi in epidermophytosis. Vest. derm.
i ven. 37 no. 10:24-26 0 '63. (MIRA 17:9)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824120010-3"

KOMOGORTSEV, A. G., inzh.

Automatic switching-in of condenser discharge resistors. Energetik
12 no.4:16-17 Ap '64.
(MIRA 17:7)

KOMOCORTSEV, I. I.

Dissertation defended for the degree of Candidate of Historical Sciences in the Institute of History

"History of Ferrous Metallurgy of Eastern Siberia (Pre-October Period)."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

KOMOGORTSEV, Ivan Ivanovich; KUDRYAVTSEV, F.A., prof., otv. red.;
NAZARYANTS, T.M., red.

[History outline of ferrous metallurgy in Eastern Siberia;
the pre-October period] Ocherki istorii chernoi metallurgii
Vostochnoi Sibiri; dooktiabr'skii period. Novosibirsk, Red.
izd. otdel Sibirskogo otd-niia AN SSSR, 1965. 214 p.
(MIRA 18:9)

KOMOGORTSEV, Ivan Ivanovich, kand. ist. nauk; IVANNIKOV, B., red.

[Large-scale chemical industries in Siberia] Bol'shaja
khimiia Sibiri. Novosibirsk, Zapadno-Sibirskee knizhnoe
izd-vo, 1964. 91 p. (MIRA 18:9)

BOCHAROV, F.; DOBRA, A.; ZAYTSEV, N.; KALUTSKIKH, N.; KOMOGORTSEV, N.; KOPANITSA, Ya.; MIKHAYLENKO, I.; PLIKHIN, P.; PODZHAROV, P.; HUZOV, M.; SEMENOV, N.; STAKHANOV, A.; USKOV, A..

Foma Evgen'evich Tiurin; an obituary. Mast. ugl. 7 no.11:32 N '58.
(MIRA 11:12)
(Tiurin, Foma Evgen'evich, 1898-1958)

KOMOGORTSEV, N.

Sixth Congress of Trade Unions. Mast.ugl. 9 no.4:3-4 Ap '60.
(MIRA 13:11)

1. Sekretar' TSentral'nogo Komiteta profsoyuza rabochikh ugel'noy
promyshlennosti SSSR.
(Trade unions)

BORYCHEV, N.I.; ZAV'YALOV, P.F.; KOMOGORTSEV, N.I., otv.red.; OSVAL'D,
E.Ya., red.izd-va; KONDRA'T'YEVA, M.A., tekhn.red.

[Handbook on work safety in coal mining] Spravochnik po okhrane
truda v ugol'noi promyshlennosti. Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po gornomu delu, 1960. 302 p.

(MIRA 13:7)

1. Soyuz rabochikh ugol'noy promyshlennosti. TSentral'nyy komitet.
2. Otdel okhrany truda TSentral'nogo komiteta profsoyuza ugol'noy
promyshlennosti (for Borychev, Zav'yakov).

(Coal mines and mining--Safety measures) (Coal miners)

GUBANOV, V.Ye., inzh.; VASIL'YEV, K.A.; ZAV'YALOV, A.S.; KOMOGORTSEV, P.Ya.,
red.: BEGICHEVA, M.N., tekhn.red.

[Ship systems] Sudovye sistemy. Moskva, Izd-vo M-va rechnogo flota
SSSR, 1951. 458 p.
(MIRA 12:3)
(Marine pipe fitting) (Ships--Equipment and supplies)

KOMOGORTSEV, P.Ya.

KUFANOV, Pavel Grigor'yevich; POTAPOV, N.S., ratsenzent; VYSOTA, I.I.,
ratsenzent; KOMOGORTSEV, P.Ya., redaktor; SHLENNIKOVA, Z.V.,
redaktor; EGICHEVA, M.N., tekhnicheskiy redaktor.

[Marine steam engines and turbines] Sudovye parovye mashiny i tur-
biny. Izd. 2-e, ispr. i dop. Moskva, Izd-vo "Rechnoi transport," 1955.
530 p.

(MIRA 8:4)

(Marine engines) (Steam turbines)

ALEKSANDROV, Andrey Svyatoslavovich; KOMOGORTSEV, P.Ya., redaktor; ARNOLD, L.V., retsenzent; PRISYAGIN, V.V., retsenzent; SHLEHENIKOVA, Z.V., redaktor; KRASNAYA, A.K., tekhnicheskiy redaktor.

[Thermal calculations for water-tube boilers of ships] Teplovoi raschet sudevskikh vedotrubnykh kotlov. Moskva, Izd-vo "Rechnoi transport", 1956. 111p.
(Boilers, Marine) (MLRA 9:6)

KUMUGORTSEV, P.Ya.

KLYUSHENKOV, Ivan Stepanovich; FEDOROV, V.F., retsentent; PENKIN, I.S.,
retsentent; KOMOGORTSEV, P.Ya., redaktor; SHLENNIKOVA, Z.V., redaktor
izdatel'stva; KRASHAYA, A.K., tekhnicheskiy redaktor

[Technology of machine-shop work in repairing machinery of river
vessels] Tekhnologiya slesarno-montazhnykh rabot po remontu
mekhanizmov rechnykh sudov. Moskva, Izd-vo "Rechnoi transport,"
1956. 322 p.
(Ships--Maintenance and repair)

SOBOLEV, Pavel Ivanovich; PENKIN, I.S., retsensent; KOMOGORTSEV, P.Ya.,
redaktor; SHIENNKOVA, Z.V., redaktor izdatel'stva; KRASHAYA, A.E.,
tekhnicheskiy redaktor

[Servicing and repairing injectors] Obsluzhivanie i remont inshektorov.
Izd.2-oe, ispr. i dop. Moskva, Izd-vo "Techno transport," 1957.
77 p. (Injectors) (MIRA 10:7)

A. L. M. O. E. C. K. I. S. E. V., R. Ya.

ARISTOV, Yuriy Kapitonovich; POPOV, V.Ya., retsenzent; KOLICHENKO, K.N.,
retsenzent; KOMOGORTSEV, P.Ya., red.; EHERLIN, K.Z., red. izd-va;
TSVETKOVA, S.B., tekhn. red.

[Auxiliary machinery of ships] Sudovye vspomogatel'nye mekhanizmy.
Moskva, Izd-vo "Techno transport," 1958. 273 p. (MIRA 11:7)
(Ships—Equipment and supplies)

KUZOVLEV, Vitaliy Aleksandrovich; KOMOGORTSEV, P.Ya., red.; POTAPOV, N.S., retsenzent.; KAN, P.M., red. Izd-va.; KUZ'MIN, G.M., tekhn. red.

[Steam boilers and engines for river and lake vessels] Rechnye parovye kotly i mashiny. Izd. 3., ispr. i dop. Moskva, Izd-vo "Rechnoi transport." Pt. 1. 1958. 301 p. (MIRA 11:11)
(Marine engines)
(Boilers, Marine)

FEDOROV, Vasiliy Fedorovich; KOMOGORTSEV, P.Ya., red.; SEMENIKOVSKIY, N.M., inzh., retsenzent; TULAVTSEV, A.Ye., inzh., retsenzent; VITASHKINA, S.A., red. izd-va; YERMAKOVA, T.T., tekhn.red.

[Steam boilers and engines for river vessels] Rechnye parovye kotly i mashiny. Moskva, Izd-vo "Rechnoi transport," Pt.2.
1958. 312 p.
(Boilers, Marine) (Marine engines) (MIRA 12:1)

VAKULOV, Nikolay Fedorovich; KOMOGORTSEV, P. Ya., red.; GAYDENKOV, V. M.,
retsazhent; VINOGRADOVA, N. N., red. izd-va; YERMAKOVA, T. T.,
tekhn.red.

[Heat-power equipment of hoisting and conveying machinery]
Teplosilovoe oborudovaniye pod'ezno-transportnykh mashin. Moskva,
Izd-vo "Technicheskii transport," 1959. 226 p. (MIRA 13:3)
(Hoisting machinery) (Conveying machinery)
(Heat engines)

VYSOTA, Ivan Iosifovich; KORABEL'SHCHIKOV, N.I., dotsent, kand.tekhn.
nauk, retsenzent; NIKIFOROV, G.V., inzh., retsenzent; KOMO-
GORTSEV, P.Ya., inzh., red.; SHLENNIKOVA, Z.V., red.izd-va;
YERMAKOVA, T.T., tekhn.red.

[Marine steam engines] Sudovye parovye mashiny. Moskva, Izd-vo
"Techno transport." Pt.1. [Construction and operation] Konstruk-
tsiya i ekspluatatsiya. 1959. 350 p. (MIRA 13:4)
(Marine engines)

VORONIN, M.A.; DMITROVSKIY, A.N.; KLYUSHENKOV, I.S.; KOMOGORTSEV, P.Ya.;
MAYKOV, N.K.; OSIPOV, L.L.; PENKIN, I.S.; SHKURATOV, I.G.;
FEDOROV, V.F.; CHERTKOV, Kh.A., red.; BERLIN, K.Z., red.izd-va;
BOBROVA, V.A., tekhn.red.

[Handbook on materials and equipment] Spravochnik po materialam i
oborudovaniyu. Moskva, Izd-vo "Rechnoi transport." Vol.2.[Equip-
ment] Oborudovanie. 1959. 607 p. (MIRA 13:3)
(Ships--Equipment and supplies)
(Harbors--Equipment and supplies)

LAKHANIN, Vladimir Vladimirovich, prof., doktor tekhn.nauk; IKONNIKOV,
S.A., dotsent, kand.tekhn.nauk., retsenzent; POTAPOV, N.S., inzh.,
retsenzent; KOMOGORTSEV, P.Ya., red.; SHLENNIKOVA, Z.V., red.
izd-va; YERMAKOVA, T.T., tekhn.red.

[Marine steam engines] Sudovye parovye mashiny. Moskva, Izd-vo
"Tekhnol transport," 1960. 342 p. (MIRA 13:10)
(Marine engines) //

VYSOTA, Ivan Iosifovich; KORABEL'SHCHIKOV, N.I., kand. tekhn. nauk,
retsenzent; LEKHANIN, V.V., prof., doktor tekhn. nauk, retsenzent;
PERVOV, V.M., retsenzent; KOMOGORTSEV, P.Ya., red.; SHLENNIKOVA,
Z.V., red. izd-va; BODROVA, V.A., tekhn. red.

[Marine steam machinery] Sudovye parovye mashiny. Moskva, Izd-vo
"Rechnoi transport." Pt.2. [Fundamentals of theory and maintenance]
Osnovy teorii i eksploatatsii. 1961. 280 p. (MIRA 14:11)
(Marine engines)

CHERTKOV, Khaim Ayzikovich; TOMPAKOV, S.L., retsenzent; ALEKSANDROV,
V.A., retsenzent; KOMOGORTSEV, P.Ya., red.; KAN, P.M., red.
izd-va; RIDNAYA, I.V., tekhn. red.

[Manual for marine boiler and ship hull building and repair
workers] Posobie kotel'shchiku-sudokorpusniku. Moskva, Izd-
vo "Rechnoi transport," 1963. 204 p. (MIRA 17:1)

RUKAVISHNIKOV, Nikolay Fedorovich; KOMOGORTSEV, P.Ya., red.;
SHLENNIKOVA, Z.V., red.

[Repair of marine low-speed diesels] Remont sudovykh tikhohodnykh dizelei. Moskva, Transport, 1965. 310 p.
(MIRA 18:12)

KOMOGORTSEVA, P.K.

Basic results of the investigation of the concentration of the
fine materials of diamond-containing ores. Biul. nauch.-tekh.
inform. VIMS no.2864-69 '69. (MIRA 18;2)

1. Yakutskiy filial Sibirs'kogo otdeleniya AN SSSR.

~~KOMKOV, F. G.~~ consistent.

Using vibration mills in producing hard silicalcite products. Sbor.
BILZHT no. 157:15-24 '59.
(Building materials) (Crushing machinery) (MIR 12:11)

KUNTSEVICH, O.V., kand.tehn.nauk, dots.; KOMOKHOV, P.G., assistant

Physical and chemical properties of pressed silicalcite and certain
silicalcite products. Sbor. LIIZHT no.157:25-41 '59. (MIRA 12:11)
(Building materials)